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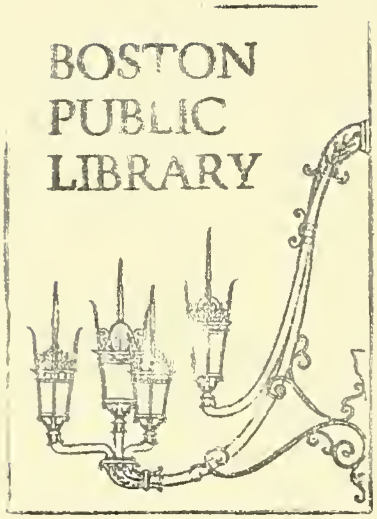

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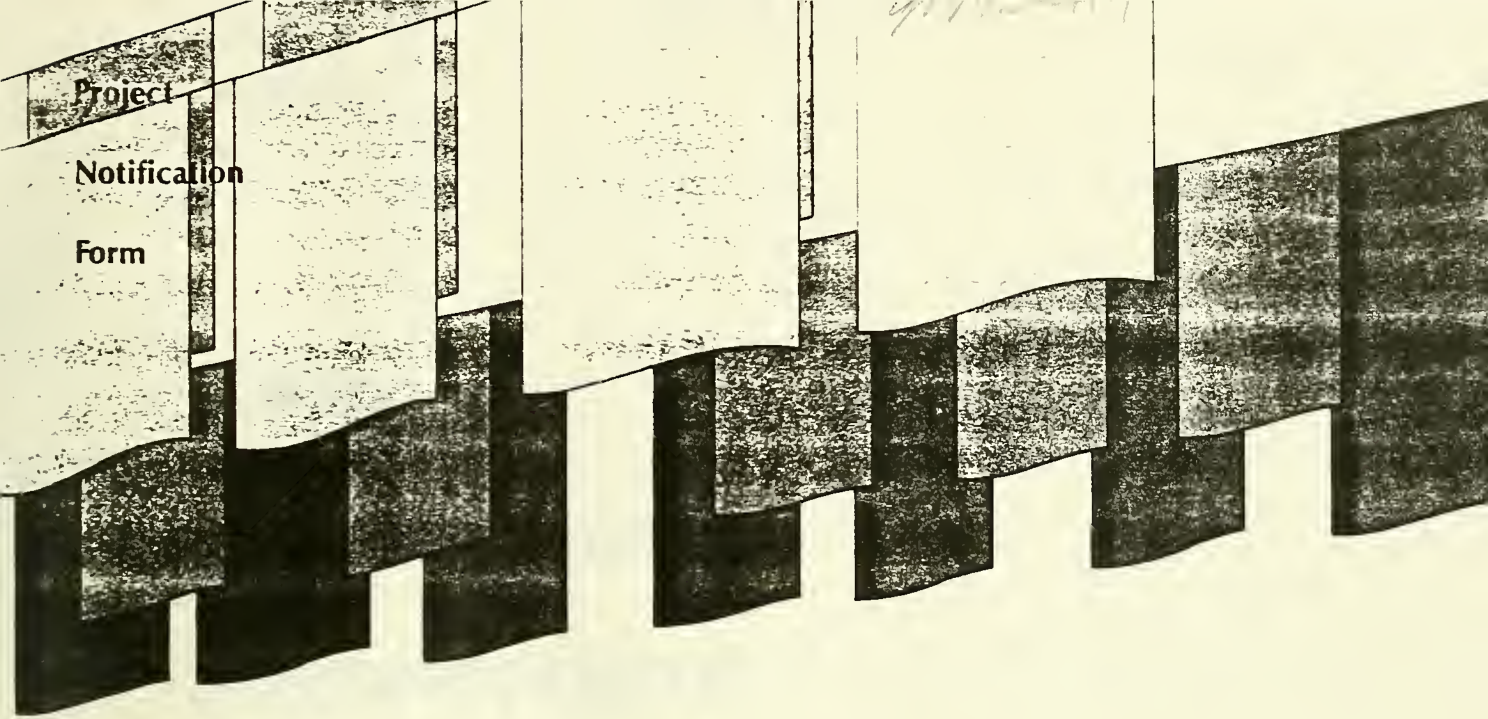

Project

Notification

Form

GOVDOC
BRA
4433

New Boston Garden Development

Submitted to

Boston Redevelopment Authority
City of Boston

Submitted by

New Boston Garden Corporation

Prepared by

Vanasse Hangen Brustlin, Inc.
Tech Environmental, Inc.
Timelines, Inc.
Camp, Dresser & McKee, Inc.
Goldberg-Zoino & Associates, Inc.
Wright Brothers Wind Facility, MIT

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Form

gov 03-414

New Boston Garden Development

Submitted to
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Vanasse Hangen Brustlin, Inc.
Meredith & Grew, Inc.
Goodwin, Procter & Hoar
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Wright Brothers Wind Facility, MIT
Flack & Kurtz
Syska & Hennessy
Le Messurier Consultants, Inc.
Turner Construction Company

April 1989

PROJECT NOTIFICATION FORM

I. SUMMARY

A. Project Identification

1. Project Name:

New Boston Garden Development

2. Address/Location:

The site is generally bounded by Causeway Street, Nashua Street, Accolon Way, and the Central Artery Ramps.

3. Property Owner:

New Boston Garden Corporation (existing Boston Garden site);

4. Proponent:

New Boston Garden Corporation (NBGC)
150 Causeway Street, Boston
Contact: Lawrence C. Moulter, Chairman/President
James R. Lowell, III, Vice President, Development

5. Proponent's Representative:

Meredith & Grew, Inc.
160 Federal Street, Boston
Contact: Thomas J. Hynes, Jr.

6. Architects:

Thomson, French & Associates
225 Friend Street, Boston, Inc.
Contact: Brian Thomson

Ellerbe Becket, Inc.
4739 Belleview
Kansas City, Missouri
Contact: Ronald F. Turner

7. Legal Counsel:

Goodwin, Procter & Hoar
Exchange Place, Boston
Contact: Paul F. McDonough, Jr., Esq.

8. Environmental Consultant:

Vanasse Hangen Brustlin, Inc.
60 Birmingham Parkway, Boston
Contact: Robert M. Kaye

9. Estimated Commencement and Completion Dates:

Construction of the Arena is planned to commence in October 1990 and will last for approximately two years. Upon completion, currently planned for 1992, the existing Boston Garden will be demolished and construction will proceed on the remaining components of the development, scheduled for multi-phased delivery through approximately 1999.

10. Approximate Cost:

$750,000,000

11. Status of Project Design:

Commercial component: 5 percent complete
Arena: 15 percent complete

12. Applicability of Article 31, Boston Zoning Code:

The project is subject to review under Article 31

B. Narrative Project Description

New Boston Garden Corporation (NBGC), owner of the existing Boston Garden and a subsidiary of Delaware North Companies, Incorporated, proposes to create a new, privately funded arena and commercial development in the North Station Urban Renewal District. This project, the New Boston Garden Development, will create a gateway to the City of Boston providing important public spaces and public benefits. The project will combine a variety of interrelated uses. As currently planned, Phase I involves the construction of a multi-purpose sports arena on a site immediately behind (north) of the existing Boston Garden. Upon completion of Phase I, currently scheduled for 1992, demolition of the existing Boston Garden will occur in Phase II to allow the creation of new commercial development on the site. This development on Causeway Street will include two buildings, one office and one office/hotel, an approximately 1,100-space underground parking garage and a multi-story public concourse. Four levels of retail and related uses, including train ticketing facilities, will be located in the bases of the office buildings surrounding the concourse. Completion of this phase of the project is scheduled for 1997. Phase III will create an office and/or hotel building on Nashua Street to the west of the new Boston Garden, with completion of the project anticipated in 1999.

Although the specific programmatic elements of the project and their respective locations have not yet been finalized, ongoing planning is based on the Memorandum of Agreement between the City of Boston and NBGC, which currently summarizes the building program as follows:

Component	Use	Height	Size
Arena - MBTA Air Rights	Spectator Events	175 Feet	18,400 Seats - Basketball 17,200 Seats - Hockey 105 Boxes (seats included in above totals)
Building A - Nashua St.	Office and/or Hotel	375 Feet	790,000 Gross Square Feet*
Building B - Causeway St.	Hotel or Office	350 Feet	630,000 Gross Square Feet*
Building C - Causeway St.	Office	400 Feet	832,000 Gross Square Feet
Pedestal - Causeway St.	Ancillary Office and Retail	N/A	50,000 Gross Square Feet
Below-Grade	Parking	5 Levels	1,100 Spaces

* Up to 56,000 gross square feet may be shifted from Building A to Building B.

The Arena is also planned for an approximately 19,500 seat capacity for single events such as concerts. The proposed new Arena and commercial development will help to facilitate the redevelopment of the entire North Station district and the numerous other public works projects being undertaken in this area. The Arena and Building A will be constructed on air rights over the parking garage and extended commuter rail platforms planned by the Massachusetts Bay Transportation Authority (MBTA) in the area immediately north of the existing Boston Garden. The New Boston Garden Development is compatible with various other public actions which are designed to upgrade regional transportation facilities. These projects include the MBTA's rapid transit facilities, the MDPW's reconstruction of the Central Artery, and the City's plans to improve Nashua Street in the project area.

The North Station area has been the subject of a continuing planning and design process between the City and the State, with the New Boston Garden Development comprising a key element of these plans. NBGC has actively participated in extended negotiations with the Boston Redevelopment Authority (BRA) and MBTA since receiving notice in June of

1988 of the City's intention to grant NBGC tentative designation as the site developer. These negotiations have resulted in modifications to the program, further increasing the public benefits. The proposed project is consistent with both the Interim Planning Overlay District (IPOD) guidelines and the Urban Renewal Plans for this area. The project is the subject of an Environmental Notification Form (ENF) being submitted to the Massachusetts Environmental Policy Act (MEPA) Unit simultaneously with this PNF.

C. Project Benefits

The project will provide a new, privately-funded, multi-purpose sports arena for the City of Boston. The new Arena will host approximately 240 events each year, including family entertainment, concerts and sports events.

In addition, the project will include office, hotel, and retail components which will contribute significantly to the economic expansion of Boston and to the strengthening of the City's tax base. Specifically, the completed project will:

- generate approximately $14 million in annual property taxes;
- contribute, based on current formulas, approximately $18 million in housing linkage and job training fees; and
- create approximately 8,000 permanent jobs and 2,500 construction jobs, half of which will be targeted for Boston residents.

The project will be planned and carried out in coordination with the Massachusetts Bay Transportation Authority's (MBTA) improvements to North Station commuter rail facilities, the Orange and Green rapid transit lines, and the MBTA garage. The project is intended to contribute to the achievement of redeveloped transportation facilities in the North Station area.

In addition to these economic benefits, there will be many urban design benefits created by the development of the project. Among these benefits are an improved visual environment, safe public spaces, an attractive new destination point in the City, and improved pedestrian connections and space in the North Station area. The project will comprise uses which are interrelated and which will result in a pedestrian environment which is active throughout the day and evening.

D. List of federal, state or local agencies from which permits or other approvals may be sought: (It is possible that not all of these permits will be needed.)

Agency Name	Permit
Federal	
Federal Aviation Administration	Determination of project's effect on air navigation
State	
Massachusetts Department of Environmental Quality Engineering, Division of Water Pollution Control	Sewer connection/extension permit(s)
Massachusetts Department of Environmental Quality Engineering, Division of Air Quality Control	Fossil fuel utilization equipment approval
Massachusetts Water Resources Authority	Sewage discharge permit
Massachusetts Executive Office of Environmental Affairs, MEPA Unit	Approval of draft and final Environmental Impact Reports
Massachusetts Historical Commission	Review of project's impacts on historic properties
Massachusetts Bay Transportation Authority	Conveyance of fee interests, air rights, and/or other real property interests
Massachusetts Department of Public Works	Conveyance of fee interests, air rights, and/or other real property interests
Massachusetts Executive Office of Transportation and Construction	Consent to issuance of building permits for construction on former railroad land
Local	
City of Boston	Conveyance of fee interests, air rights, and/or other real property interests

Boston Air Pollution Control Commission	Parking freeze permits/exceptions
Boston Redevelopment Authority	Development Impact Project Plan approval; conveyance of fee interests, air rights, and/or other real property interests; → Planned Development Area; Article 31 review; linkage obligations; employment plan; daycare requirements
Boston Civic Design Commission	Project review
Boston Water and Sewer Commission	Sewer connection permit
Boston Department of Public Works	Permits/easements for street/ sidewalk alterations/encroachments, street excavation, construction fencing, curb-cuts
Boston Department of Inspectional Services	Building permits; Demolition permits; Certificates of occupancy; other construction-related permits
Boston Fire Department	Permit(s) for removal and/or installation of underground fuel tanks
Boston Public Improvements Commission	Approval of curb-cuts; street discontinuances; rights of way
Boston Department of Health and Hospitals	Approval of plans for asbestos removal
Boston Public Safety Commission	Garage permit; Gasoline storage permit for parking garage;Permit for storage of fuel in tanks
Boston Zoning Commission	Planned Development Area
City of Boston Board of Appeal	Exceptions

E. Zoning Relief Required for this Project:

Assuming that the project area is made eligible for a Planned Development Area (PDA), any Master Plan and the Development Plans for the PDA will have to be approved by the Boston Redevelopment Authority (BRA), adopted by the Zoning Commission, and approved by the Mayor. To the extent necessary, exceptions from the provisions of the Zoning Code will be sought from the Zoning Board of Appeal under the PDA, pursuant to Article 6A of the Boston Zoning Code. Other zoning relief may be required.

F. Public Financial Assistance:

At this time, the project Proponent does not anticipate seeking financial assistance from any government agencies or programs for the proposed project.

II. PROJECT DESCRIPTION

A. Map and Plans (attached)

B. Approximate Dimensions (subject to change)

		Existing	Proposed
1.	Height:		
	Arena (at roof center):	116 Feet	175 Feet
	Building A:	--	375 Feet
	Building B:	--	350 Feet
	Building C:	--	400 Feet
	Pedestal Element:	--	50-100 Feet*

* Height of pedestal element is included in totals for Buildings B and C

		Existing	Proposed
2.	Square Footage of Lot(s):	N/A	286,400 SF
3.	Setbacks:	0 Feet	(See Roof Plan)
4.	Loading Bays:	1 Bay	14 Bays
5.	Parking Facilities:	See Section III A	1,100 Spaces
6.	Approximate Gross Square Footage:	558,800 GSF	2,302,000 GSF (plus Arena -- 744,500 GSF)
7.	Floor Area Ratio:	N/A	$\frac{\text{2,302,000 SF + Arena}}{\text{286,400 SF}}$

C. List of Proposed Uses, and the approximate square footage for each:

Proposed Uses	Approximate Square Footage (subject to change)
Office	1,736,000
Hotel	500,000 (350 rooms)
Retail	50,000
Public Concourse	16,000
Arena	744,500

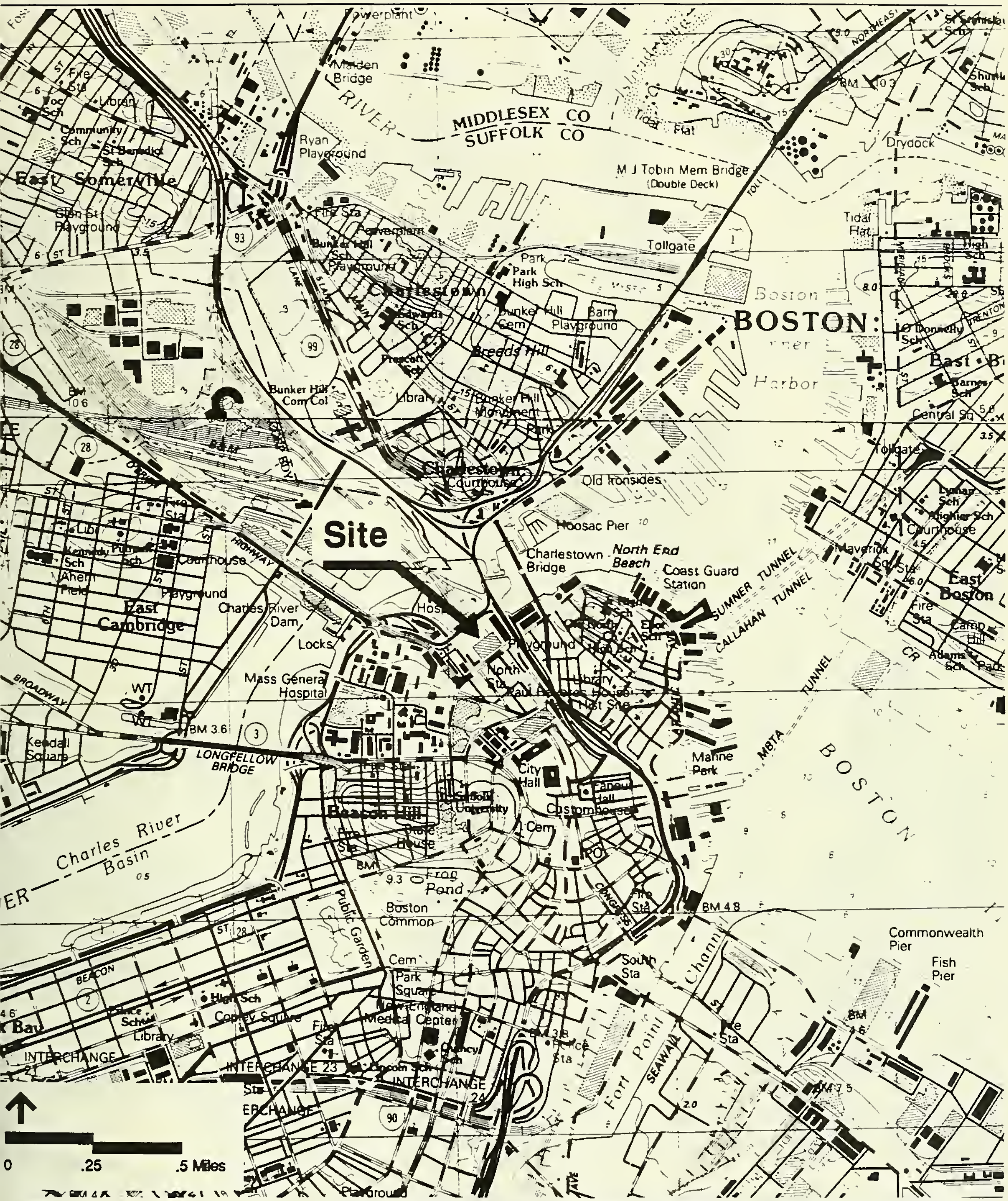
D. List of Existing Uses:

Boston Garden Arena, North Station and associated retail: approximately 558,800 SF

150 Causeway Street (Anelex Building, currently used, in part, to service existing Arena): approximately 544,000 SF to be demolished as part of Central Artery Project

E. Anticipated Project Phasing:

October	1990	Construction begins on Arena.
October	1992	Delivery of Arena.
January	1993	Demolition of existing Arena.
May	1993	Demolition completed.
May	1993	Construction begins on Building C.
May	1995	Delivery of Building C.
May	1993	Construction begins on garage under pedestal.
December	1994	Delivery of garage.
June	1995	Construction begins on Building B.
June	1997	Delivery of Building B.
June	1997	Construction begins on Building A.
June	1999	Delivery of Building A.



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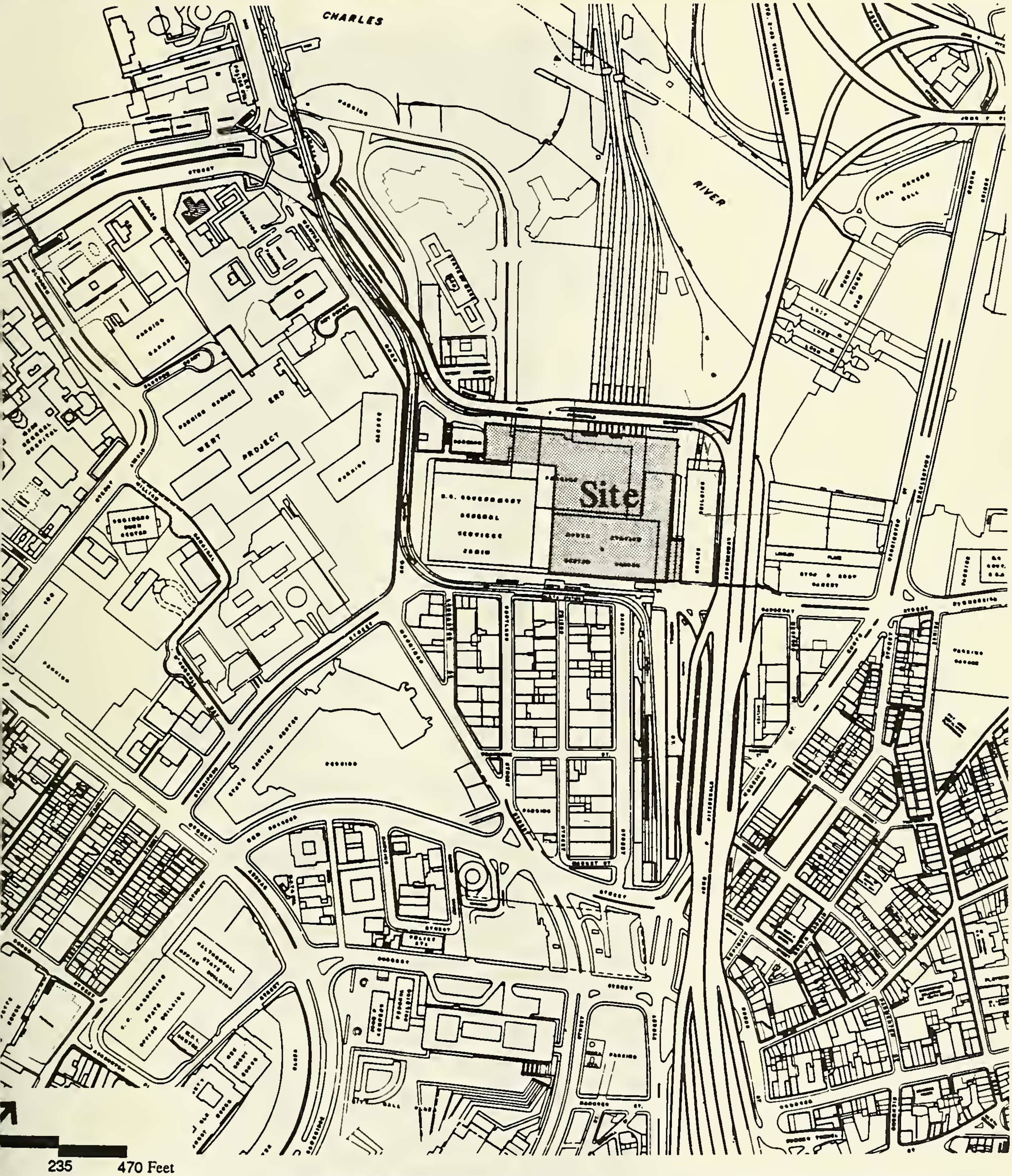
USGS Locus Map

Figure 1



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Site Vicinity Map

Figure 2

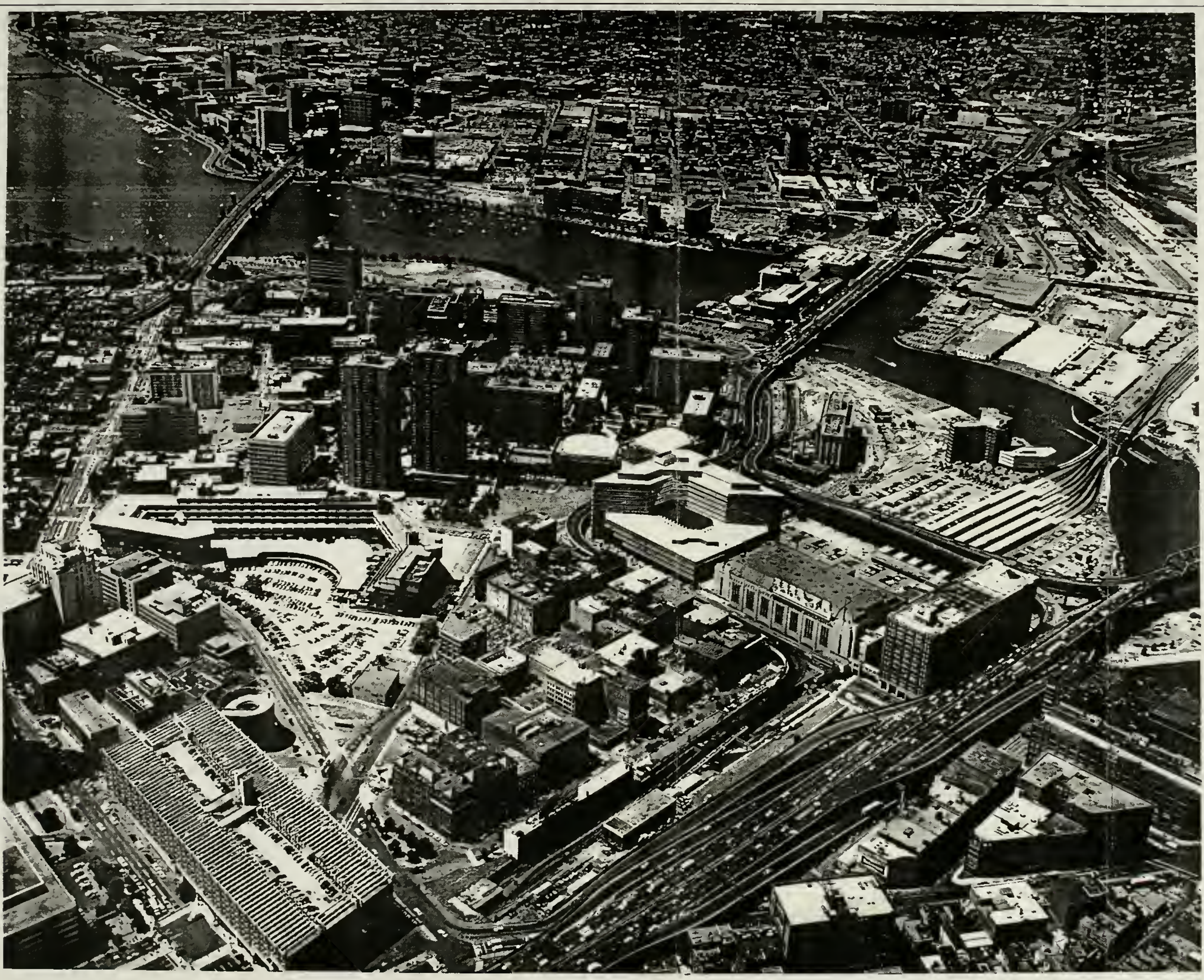

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Figure 3

Aerial View of Existing Boston Garden (Looking West)

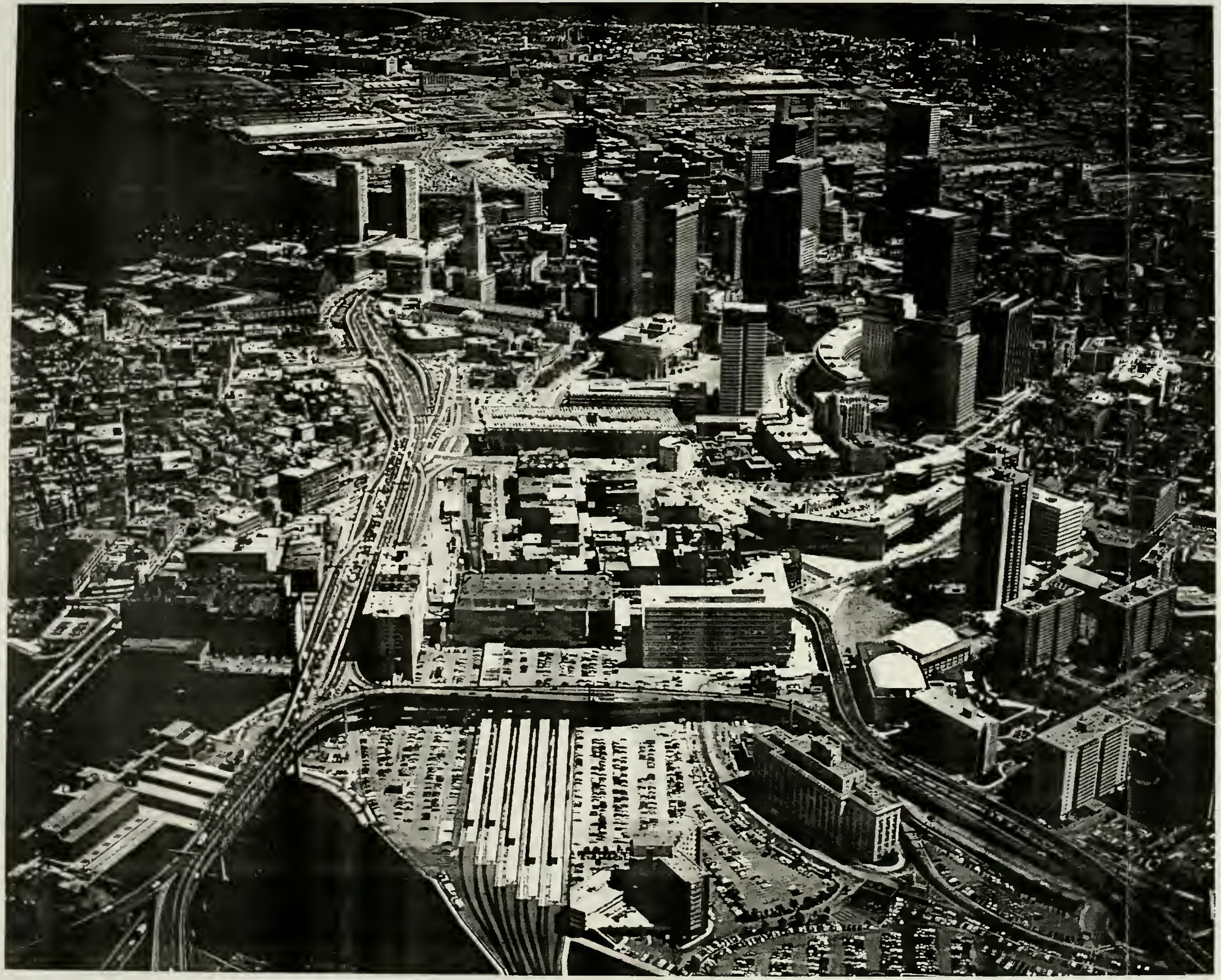

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Figure 4

Aerial View of Existing Boston Garden (Looking Southeast)

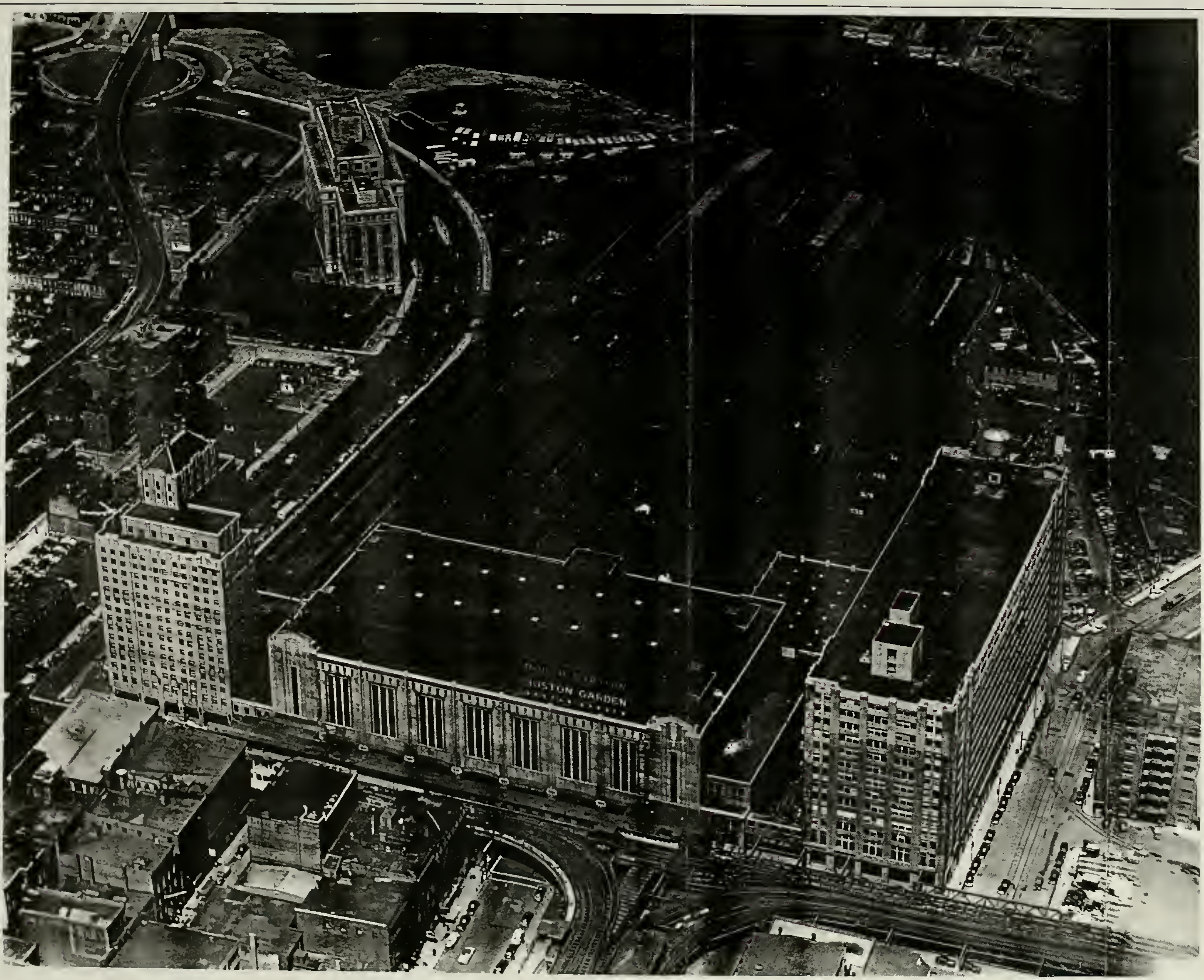

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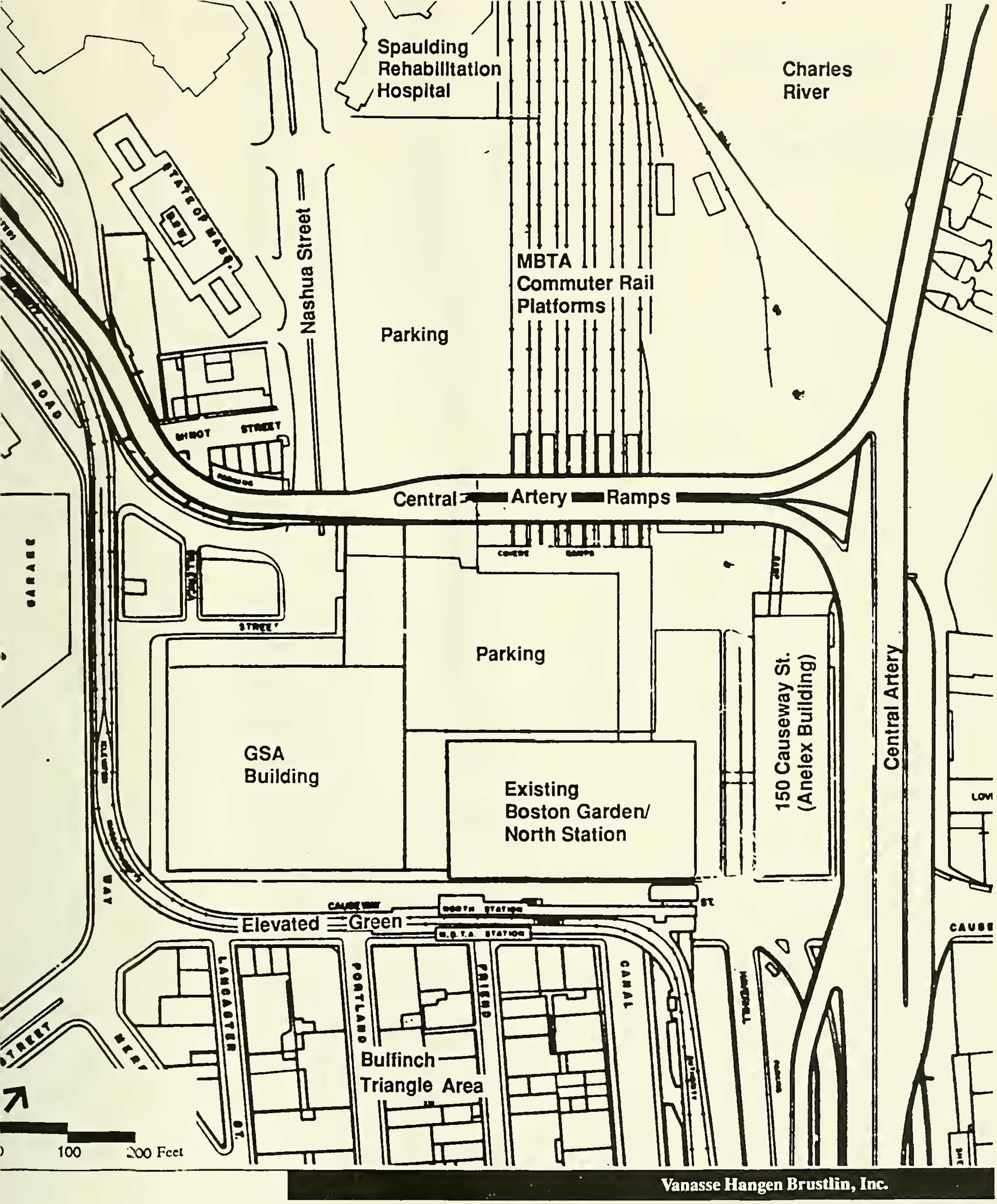
Figure 5

Historic View of North Station Area (circa 1940's)



Existing Conditions Figure 6

▨ Location of MBTA Underground Garage

☐ Location of New Boston Garden Development Underground Garage

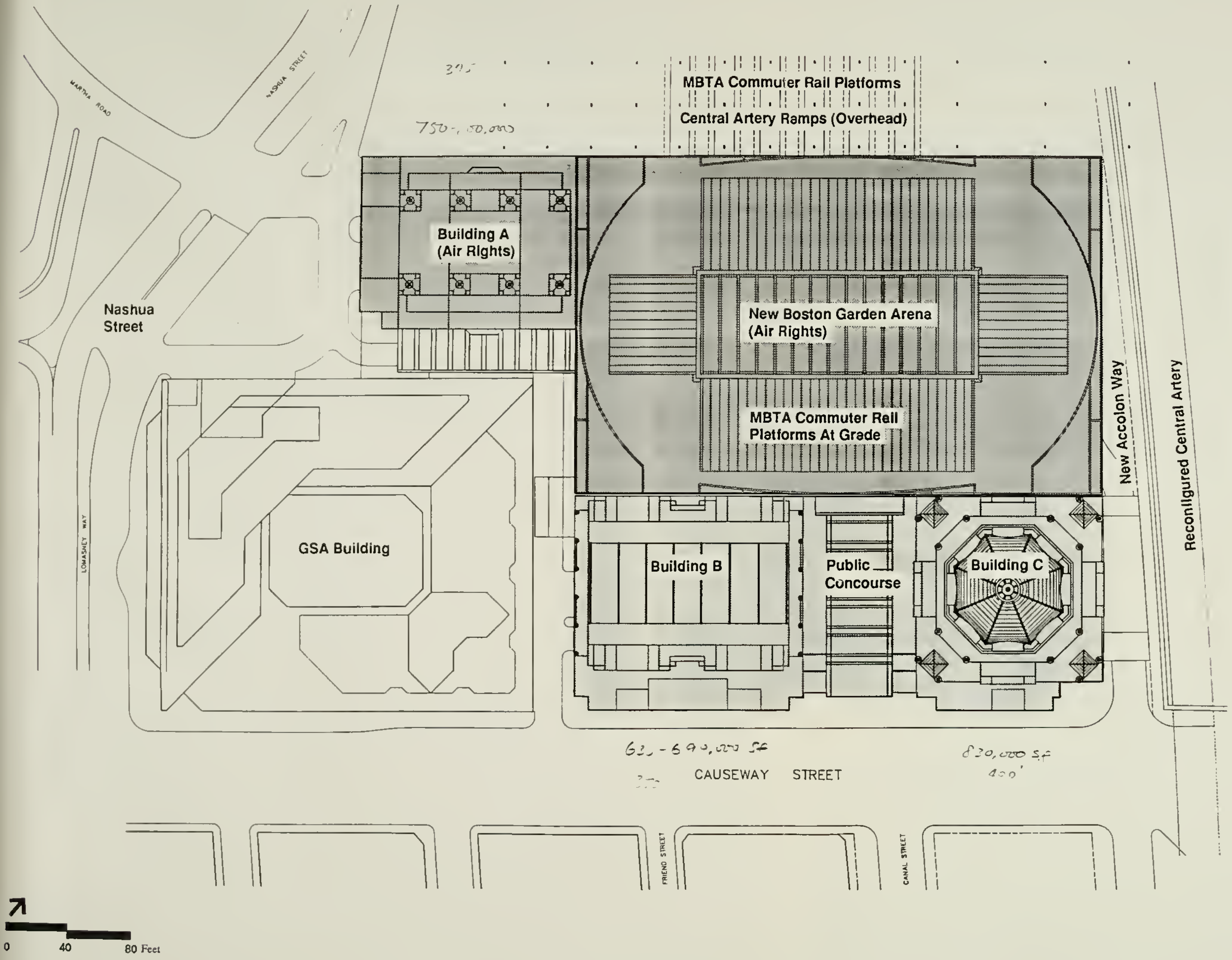


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Figure 7

Project Components

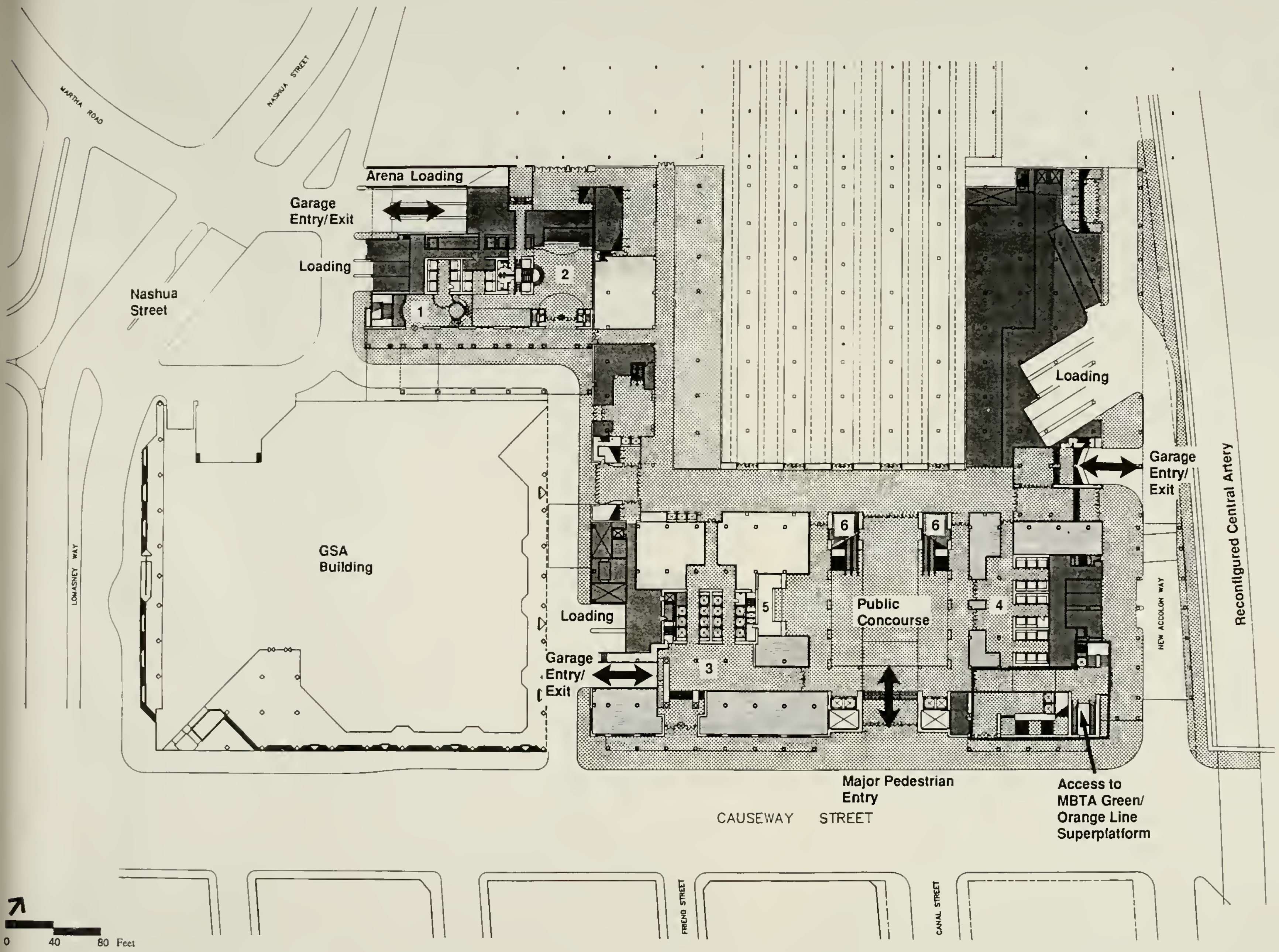

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Figure 8

Ground Floor Plan

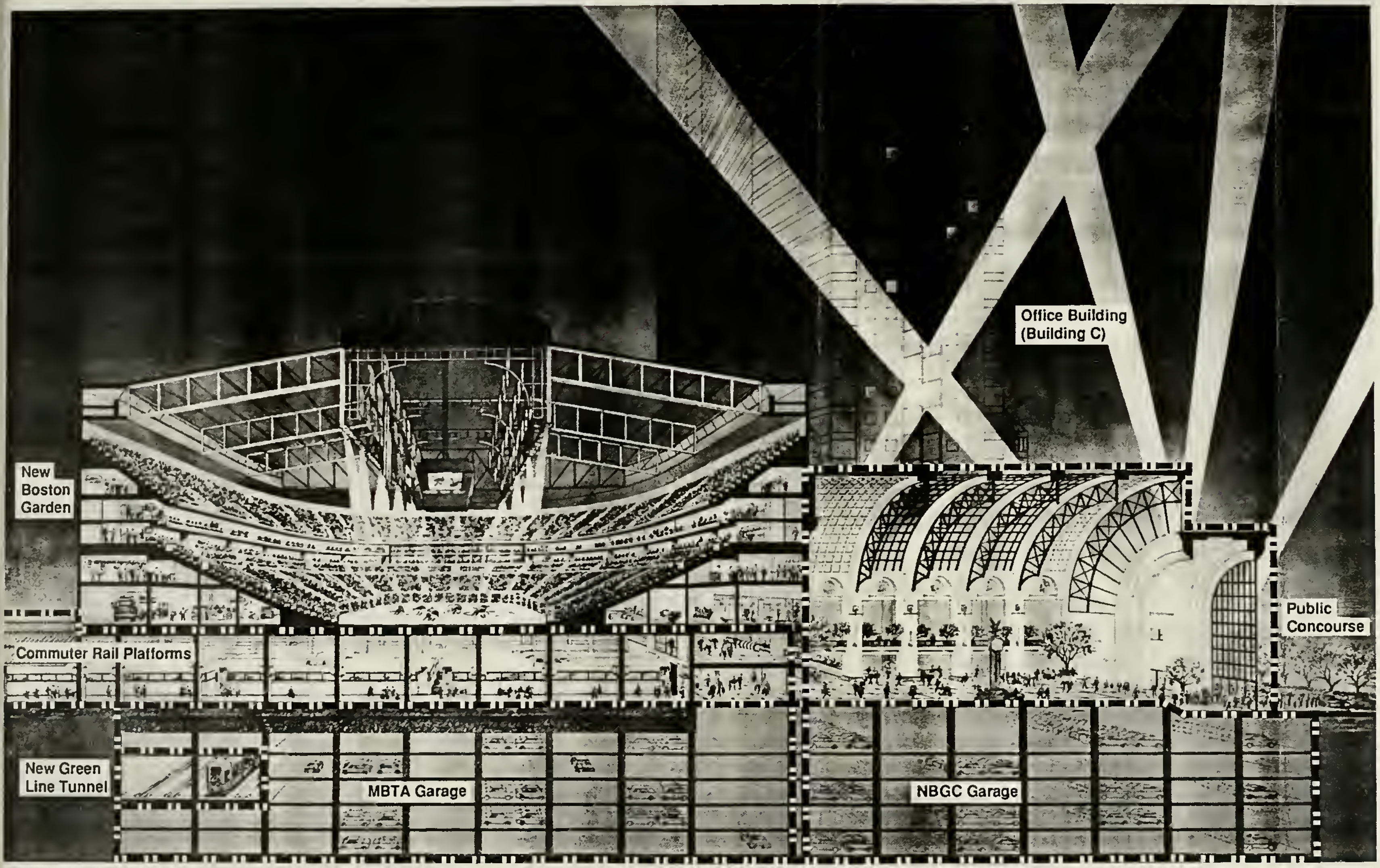

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Figure 9

Cross Section

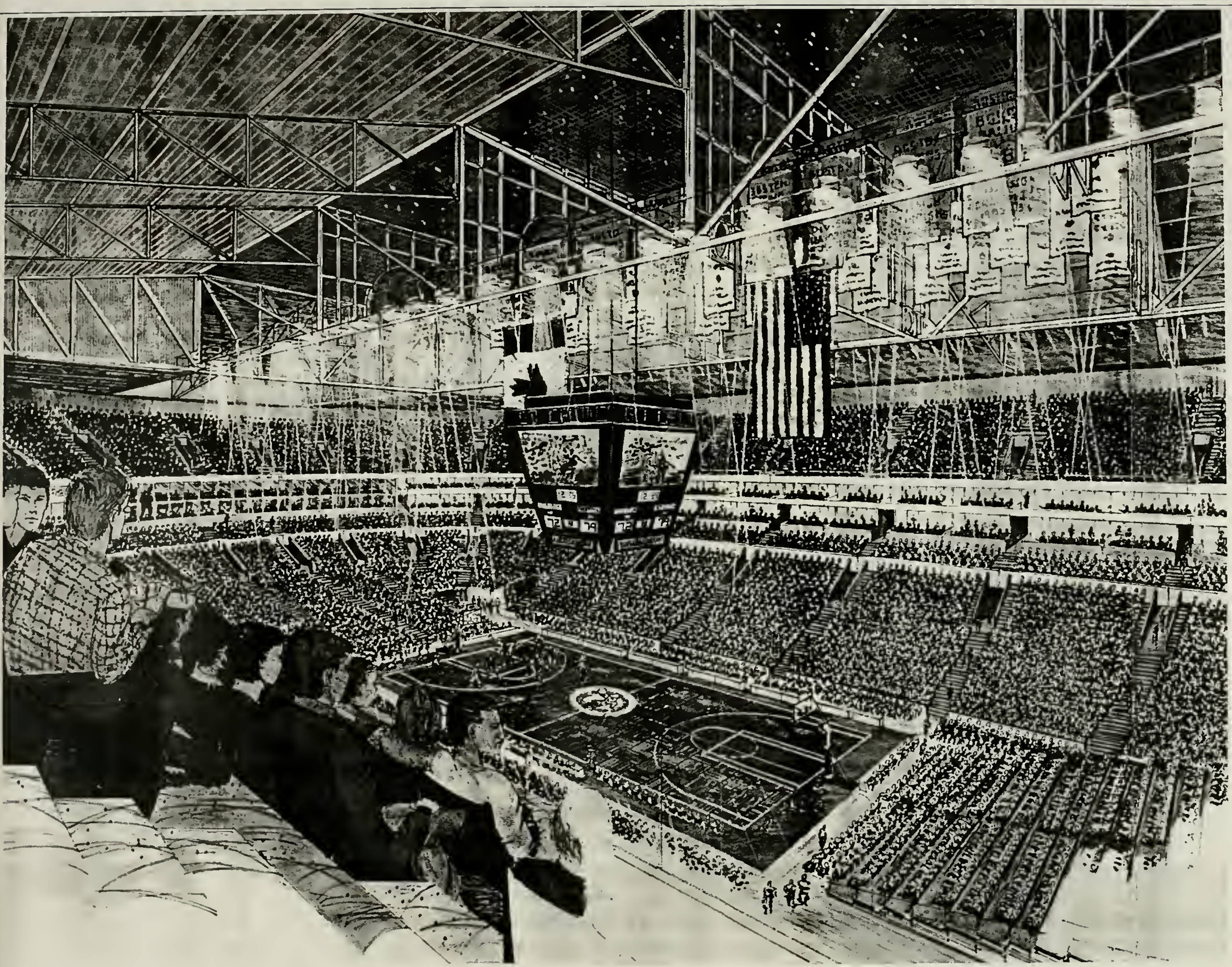

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Figure 10

Interior of New Boston Garden

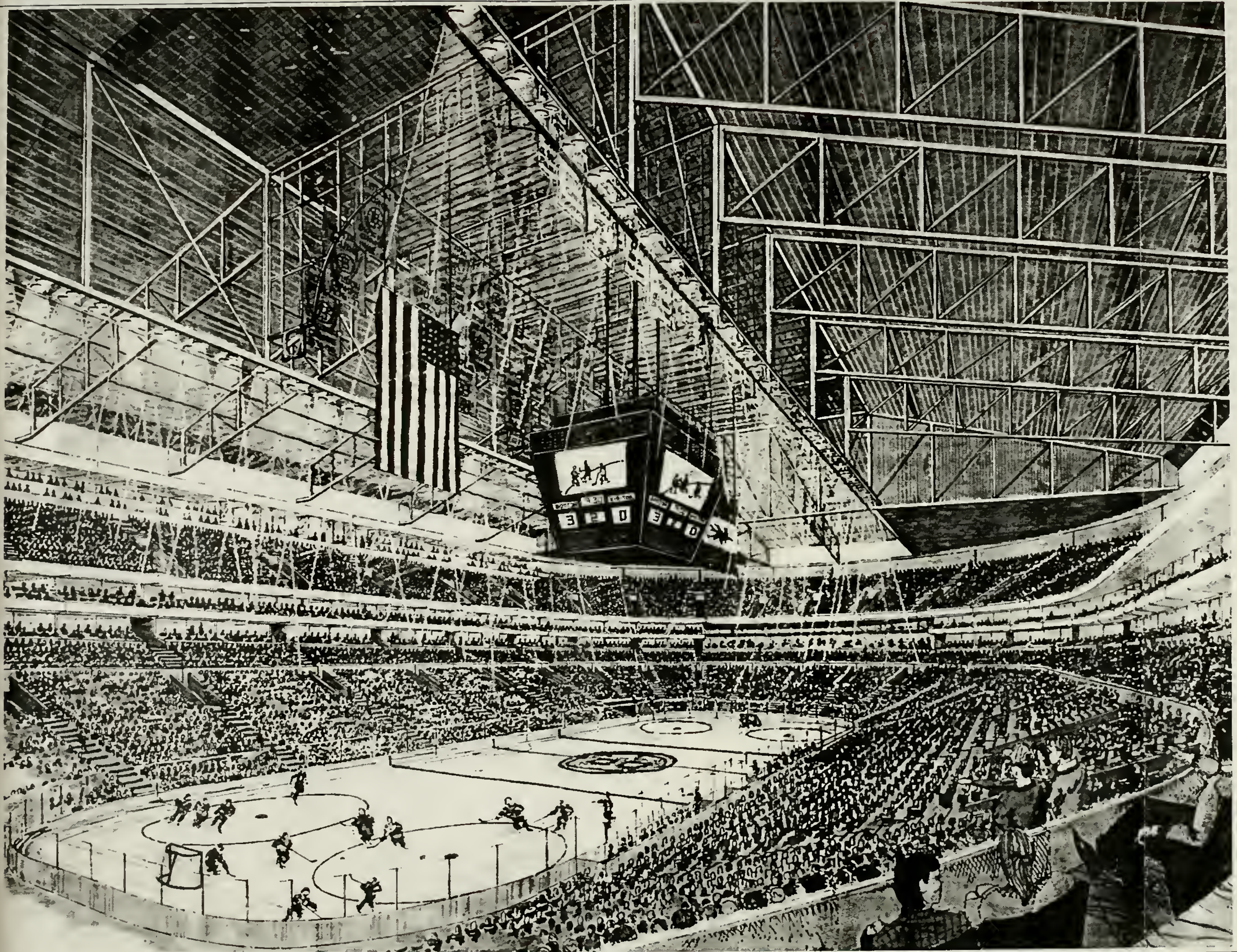

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Figure 11

Interior of New Boston Garden

III. ASSESSMENT OF DEVELOPMENT REVIEW COMPONENTS

A. TRANSPORTATION COMPONENT

The following information is based on preliminary calculations prepared by the Proponent's transportation consultant.

1. Traffic Management

Preliminary trip generation figures for the New Boston Garden Development are listed below. They represent net new trips after demolition of the adjacent 150 Causeway Street (Anelex Building). Both unadjusted ITE (Institute of Transportation Engineers) and adjusted local generation estimates are included for the vehicle component. Trip generation estimates include the office, retail, and hotel components, but not the new Arena. Data on Arena trip generation is not yet available but will be identified in the Draft Environmental Impact Report (DEIR) for the State and Draft Project Impact Report (DPIR) for the City. It is anticipated that in comparison with the existing Boston Garden, the new Arena will have some impact on trip generation to the site due to changes in seating capacity and the number and type of events. Data will be gathered to determine existing Arena activity and will be used to define future Arena trip generation. The new Arena, on average, is expected to add almost no net new AM peak hour trips and relatively few net new PM peak hour trips. Traffic management strategies for the PM peak hour when an evening event is scheduled at the Arena, will be prepared as part of the Transportation Access Plan (TAP) for the project.

TABLE 1
NET NEW TRIP GENERATION ESTIMATES

	VEHICLE*			TRANSIT**			WALK**		
	DAILY	AM	PM	DAILY	AM	PM	DAILY	AM	PM
Site Trip Generation (Based on unadjusted ITE vehicle rates)	15,200	1,750	1,950		***			***	
Site Trip Generation (Based on local area trip generation rates)	4,350	550	650	10,100	1,750	1,850	2,450	200	280

* Vehicle Trips
** Person Trips
*** ITE trip generation rates do not consider transit and walk trips.

The unadjusted ITE vehicle trip estimates are submitted as required by MEPA. The local trip generation estimates included are derived from previous transportation studies conducted in Downtown Boston, including surveys of office buildings in the Bulfinch Triangle area. The net new trips given in the table should be reasonably representative of site-generated impacts. The MBTA's 1,450-space parking garage, to be located beneath the new Arena, will not add additional net new trips to that portion of the project area, according to the MBTA's recent traffic impact analysis report for the garage. The MBTA garage will provide replacement spaces for those lost by reconstruction of the Central Artery and various public transportation improvements at North Station (see Parking Management below).

Preliminary trip distribution data for the major office components of the project have been developed. These data are taken from office building surveys in the Bulfinch Triangle area. Trip distribution for Arena events and for the retail and hotel components of the project will be identified in the DEIR/DPIR. Based on current data for the project area, office work trips to and from the site follow these general distribution patterns:

o	North - I-93/Route 1	33%
o	West - Massachusetts Turn Pike	9%
o	South - I-93/Route 3	32%
o	Northwest - Storrow Dr./Route 2	26%

Current traffic volumes and preliminary estimates of net new traffic added by the project on streets near the project site are listed in Table 2. Current traffic volumes and the assumptions listed below were used to develop these estimates. The MDPW/Central Artery team is currently working on revising long-range (1995 and 2010) traffic forecasts for the North Station area as part of the Central Artery project. The traffic forecasts obtained from the MDPW will be used in the DEIR/DPIR process. Current analysis assumptions include the following:

- MDPW Scheme "Z" was used to define the future roadway network;
- three access/egress points for the project were used: Causeway Street at Portland Street (enter only), Causeway Street at Accolon Way, and reconstructed Nashua Street;
- local trip generation estimates were used because they better reflect the expected Downtown Boston travel demand characteristics;

- trips generated by the MBTA garage beneath the site will be offset by trips from parking spaces lost due to reconstruction of the Central Artery and other area projects;
- everyone wishing to park at or near the project site was assumed to be able to do so (parking supply was assumed not to be a constraint on travel demand); and
- trips from the new Arena are not included but are assumed, on average, to add almost no net new trips to the AM peak hour and relatively few net new trips during the PM peak hour.

TABLE 2
TRAFFIC VOLUME SUMMARY ON SELECTED STREETS

STREET	EXISTING TRAFFIC	EXISTING PLUS PROJECT TRAFFIC	PERCENT INCREASE
Causeway Street West of Portland Street	28,000 daily/ 1,765 peak	28,280 daily/ 1,790 peak	1.0% 1.4%
Lomasney Way North of Causeway Street	22,210 daily/ 1,670 peak	22,685 daily/ 1,740 peak	2.1% 4.2%
Nashua Street North of Cotting Street	20,000 daily/ 1,300 peak	22,150 daily/ 1,610 peak	10.7% 23.8%
Staniford Street West of Merrimack Street	17,970 daily/ 1,270 peak	18,570 daily/ 1,340 peak	3.3% 5.5%
Merrimack Street South of Lancaster Street	7,020 daily/ 475 peak	7,170 daily/ 500 peak	2.1% 5.2%
Portland Street South of Causeway Street	4,920 daily/ 475 peak	5,190 daily/ 490 peak	5.4% 3.1%

Source: VHB - Portland Place, Transportation Access Plan, December, 1988

A series of traffic and demand-reduction measures will be proposed in the DEIR/DPIR. Potential measures include:

- improve operations on the existing street system,
- increase roadway capacity,
- design new pedestrian facilities,
- promote carpools/vanpools,
- promote public transportation usage,
- hire a transportation coordinator,
- disseminate information on public transportation and ridesharing opportunities,
- encourage flexible work-hour programs or other alternative work schedules.

The project Proponent has already worked closely with the Boston Transportation Department to prepare several conceptual design alternatives for Nashua Street and Causeway Street to provide appropriate tie-Ins to the City's Urban Systems streets planned for the North Station area, as well as the State's Central Artery Reconstruction Project. These conceptual designs will be refined during the DEIR/DPIR process when the City/State roadway network in this area is further defined.

2. Parking Management

The project includes an underground parking garage with approximately 1,100 spaces. Adjacent to this parking facility and beneath the new Arena site, a 1,450 space parking garage is proposed by the MBTA. The 1,450 spaces provided by this facility are intended to be replacement spaces for existing parking in the North Station area. The MBTA Traffic Impact Report for the North Station Garage identifies 1,666 parking spaces that will be lost due to the reconstruction of the Central Artery and various public transportation improvements at North Station, including the relocation of the Green Line, construction of additional tracks to serve MBTA commuter rail, and the garage. Approximately 1,406 of these spaces are currently permitted under the City of Boston's parking freeze. These figures support the MBTA's finding that minimal new traffic impacts are likely from the MBTA garage.

Net new parking demand for the proposed commercial development is approximately 1,170 spaces. This number represents both the long-term (750 spaces) and short-term (420 spaces) parking demand. The demand is based on the net square footage increase after the demolition of 150 Causeway Street (Anelex Building) and does not include the Arena facility. It is anticipated that any shortfall in parking provided by the project will result in an increase in transit use and/or ridesharing by site-generated trips. Parking demand for the new Arena will be defined in the DEIR/DPIR. The existing supply of parking within about one-quarter mile of the site is over 4,500 public off-street spaces with virtually all occupied during the peak occupancy period.

Appropriate measures to address parking issues will be developed as part of the DEIR/DPIR process. Potential measures include:

- limit the number of long-term parking spaces;
- set parking fees to discourage auto trips by project employees;
- make preferred locations available for carpool and vanpool spaces to encourage ridesharing; and
- coordinate use and signage of the MBTA and project garages, particularly during Arena events, to maximize parking efficiency and minimize unnecessary vehicle circulation.

3. Construction Management

Standard methods developed as part of recent Downtown construction projects will be used to minimize effects on the surrounding area from truck movements, deliveries, and construction worker parking. It is expected that no on-site parking will be available for general construction employees, and that the cost of available off-street parking will discourage significant vehicle use by construction workers. Construction worker shifts typically are such that their trips do not coincide with the peak commuter hours, and the locations and timing of truck deliveries will be managed to reduce adverse impacts as well. Management of construction-related traffic will be described in the DEIR/DPIR. An overall Construction Management Plan will be developed with appropriate City agencies prior to the application for a building permit.

4. Monitoring

The DEIR/DPIR will include a monitoring section which will describe access goals and objectives for the project, along with a mechanism to report on the effectiveness of mitigation measures proposed for implementation.

B. Environmental Protection Component

1. Wind Effects

Future pedestrian-level wind conditions within the vicinity of the New Boston Garden Development will be determined by a complex set of factors which will be analyzed as part of the project's review process. The project Proponent has retained a qualified wind engineer who has evaluated the existing site and reviewed project plans. Future pedestrian-level wind conditions in the project area will be assessed through wind tunnel testing using a scale model of the development and of the surrounding areas of the City of Boston.

It is anticipated that, in addition to seasonal wind data, key factors to be considered in this analysis will include area projects planned by public agencies, such as the MBTA's elimination of the elevated Green Line above Causeway Street; potential future development which may occur immediately north of the site on MBTA or Massachusetts General Hospital property; existing area structures which will remain in the future, such as the ramps for the Central Artery; and, the proposed massing of the New Boston Garden Development, including building setbacks, covered arcades, canopies and other pedestal elements.

It is anticipated that along Causeway Street, pedestrian-level winds will be largely unaffected by prevailing winter winds, which come from the northwest. The Causeway Street sidewalk along the project will be partially arcaded and the project's high-rise elements will be substantially set back from the building edge along Causeway Street to minimize pedestrian-level winds. The presence of existing high-rise buildings southwest of the site is expected to buffer winds from that direction, and the presence of the densely developed Bulfinch Triangle is expected to buffer winds from a southerly direction.

2. Shadow Effects

No new shadows are expected to be cast by the project into the Bulfinch Triangle. The project is expected to cast new shadows to the east, west and north of the project site. A detailed analysis of the project's shadow effects will be conducted as part of the project review process.

3. Daylight Effects

A major increase in daylighting along Causeway Street will occur due to the demolition of the elevated MBTA Green Line tracks. The tracks will be relocated to a tunnel, an action facilitated by the New Boston Garden Development. From the north side of Causeway Street adjacent to the site, the percentage of daylight will be increased over existing conditions due to an increase in the setback of the project from the street curb.

From a vantage point on the south side of Causeway Street, the percentage of daylight will also be increased as a result of removal of the elevated Green Line. The project's three high-rise buildings will reduce daylight to some extent from this vantage point. This effect will be mitigated, however, by substantial setbacks of these components from the building edge.

4. Solar Glare Effects

Current plans for the design and structure of the project do not include large expanses of glass curtain walls which increase solar glare. Instead, the project is currently planned to include a variety of masonry materials and non-reflective glass with a range of textures and colors.

5. Air Quality Effects

Sources of air pollution associated with the New Boston Garden Development include: motor vehicle traffic associated with activities at the project; ventilation of motor vehicle exhaust from the 1,100-space underground garage; and, short-term construction/demolition activities. Pollutants associated with motor vehicles are primarily carbon monoxide, oxides of nitrogen, and hydrocarbons. Construction and demolition will temporarily release some particulate matter into the air (fugitive dust).

There are various sensitive receptors which could be affected by the project. These include pedestrians at North Station and the existing Arena, as well as various hospitals, residential buildings and recreational areas in the general vicinity of the project. However, the parking garage facility and related roadway improvements will be constructed to ensure compliance with the National Ambient Air Quality Standards. Mitigation measures will be proposed to minimize construction and demolition impacts.

6. Water Quality Effects

The project will not require construction within the surface waters adjacent to the site. Special provisions will be incorporated to mitigate impacts due to any construction dewatering activities. New storm drain outlets may be required to direct runoff to local surface waters.

7. Flood Hazard Districts/Wetlands Effects

The project site does not contain any wetlands, salt marshes or tidal areas, nor is the site located in a flood hazard area (100-year floodplain) as defined by FEMA (see FEMA panels 250286 0004 C and 250286 0004 C).

8. Groundwater Effects

Because the Arena and Building A will be constructed on air rights over the planned MBTA underground garage and extended commuter rail platforms, no subsurface effects will be associated with these components. For the foundations of Buildings B and C and the project's pedestal element, installation of a perimeter slurry wall down to bedrock is expected to minimize effects on the local water table. All excavation will occur within the confines of the slurry wall. The water table outside the slurry wall will be monitored to assure no adverse drawdown is occurring.

9. Geotechnical Effects

Because the Arena and Building A will be constructed on air rights over the planned MBTA underground garage and extended commuter rail platform, no subsurface effects will be associated with these components. For the foundations of Buildings B and C and the project's pedestal element, the bracing system for the slurry wall and deep excavation will be designed and constructed to minimize lateral soil movements and protect adjacent structures, underground tunnels, utilities, and streets. Lateral movements and settlements outside the excavation will be monitored.

10. Solid and Hazardous Waste Effects

Based on the building program as described in Section II, Part B, of this PNF, it is anticipated that at full build the New Boston Garden Development will generate approximately 200 cubic yards of solid waste per day, in addition to waste generated by the new Arena. Disposal of this material will be handled by a private contractor. No hazardous wastes are expected to be generated by the operation of this project.

During the project's construction phase, demolition of the approximately 560,000 gross square foot existing Arena structure will result in debris to be removed by a private contractor. These various waste materials will be disposed of by a private contractor in accordance with Massachusetts DEQE requirements. Any asbestos in the building will be removed by a licensed contractor and properly disposed of prior to demolition. Project construction will involve typical construction practices requiring the use of standard chemical materials, including oil-based substances for equipment maintenance and paving, and entrainment fluids for use in concrete mixing.

The DEQE Incident Response files and spills database indicated no spills on the site, but showed 1982 and 1986 spills of large amounts of fuel oil at the nearby Stop & Shop Building (226 Causeway Street, cross-gradient from the site). Any excavated fill identified as containing potentially hazardous materials will be removed in accordance with all regulatory requirements.

The project site was originally part of the Charles River estuary and was filled in the early 19th century with a miscellaneous combination of soil, brick, cinders, gravel, and building debris. The site has been a major railroad terminus for most of the past 140 years and, as such, may have experienced a number of small releases of fuel oil and cleaning solvents. In 1936, a permit was issued by the Boston Fire Department for storage of gasoline in 25 rail cars and for storage of various inflammables at the Boston Garden.

11. Noise Effects

Noise will be generated during the construction phase of the project by activities such as construction traffic, foundation work, demolition of the existing Boston Garden, pile placement, and general construction activities. The construction/ demolition is expected to commence in the Fall of 1990 and be completed by 1999. Mitigation measures will be proposed to minimize construction noise effects on the community. The operation of the New Boston Garden Development will result in a minimal increase in noise due to increased motor vehicle traffic. There are various sensitive receptors which could be affected by the project. These are the same receptors which are listed for air pollution, and include pedestrians, residential buildings, hospitals, and recreational areas in the vicinity of the project.

12. Construction Effects

It is anticipated that the principal issues pertaining to construction of the New Boston Garden Development will involve coordination with other nearby projects; maintenance of vehicular circulation, public transportation, and pedestrian access; air and noise effects; and geotechnical effects.

As previously described, a number of projects will be undertaken by public agencies within the immediate vicinity of the New Boston Garden Development. These include the Central Artery reconstruction, the MBTA underground garage, MBTA commuter rail platform work, Green Line rapid transit relocation, and the realignment of Nashua Street. The on-going process of coordination between planning for the New Boston Garden Development and planning for these public projects will be continued during construction phases to maximize efficiency and to ensure that area disruption is minimized.

The Proponent is fully committed to the maintenance of site access during construction of the New Boston Garden Development. Throughout the course of project construction, access to commuter rail, rapid transit and Arena events will continue uninterrupted. Construction staging, deliveries and parking will be managed to ensure that safe and hospitable pedestrian routes to the site are available at all times.

Construction activity will result in short-term air quality effects. Any release of fugitive dust will be minimized by site wetting and other mitigation techniques. Noise will also be generated during the construction phase, primarily by earth moving equipment, demolition, and pile placement activities. Minimal long-term noise effects will result from increased levels of vehicular activity at the site.

The proposed Arena and Building A will be constructed on air rights over the planned MBTA underground garage and extended commuter rail platforms. Foundation construction for the balance of the project will use techniques ensuring groundwater cut-off and protection of area foundations, structures and utilities.

13. Rodent Control

The project Proponent will implement a pest control program to be administered by a licensed pest control contractor. Rodent control measures will be in place prior to, during, and following construction activities. The rodent control program will fully comply with pertinent City and State regulations.

C. Urban Design Component

1. Architectural compatibility

The historic Bulfinch Triangle is an area of architectural significance located immediately south of the site. Although the project is consistent with applicable City Interim Planning Overlay District (IPOD) zoning requirements for development of the area, the project is clearly larger in scale than development found within the Bulfinch Triangle. This change in scale represents an appropriate reflection of the civic importance of the Boston Garden/North Station site. The site has historically been the location of large scale development, including the predecessor to the current North Station building, Union Station, built during the turn-of-the century. As a center of rail transportation, rapid transit, professional sports and major civic functions, the project site is a suitable and desirable location for large scale development. With the removal of the elevated Green Line, it is expected that Causeway Street will become a major boulevard which will provide a transitional element between the Bulfinch Triangle and the project, and which will signal the civic importance of this location within the City.

The project is being planned to utilize architectural forms, rhythms and materials sympathetic to those found within the 19th century commercial structures of the Bulfinch Triangle. Patterns of building articulation and fenestration will be used which respond to those found in the Bulfinch Triangle.

In order to respond to the height of existing buildings along Causeway Street, the project is planned to incorporate an approximately eight-story pedestal element, with high-rise elements stepped back from the building edge. Rather than being monolithic, the base element will step down at certain points along Causeway Street, creating a scale and character compatible with the Bulfinch Triangle.

2. Relationship to Subdistrict Urban Design Features:

The project will establish a strong relationship with the urban design features of the surrounding area in terms of a variety of factors, but notably in terms of directions of pedestrian movement, visual corridors, and patterns of form, scale, and use.

The project has been planned to respond to the axes of pedestrian movement in the area in the following ways:

- The main entrance to the Arena and train station is aligned with Canal Street, which is aligned with the Haymarket transit station and garage.
- The main entrance to Building B is aligned with Friend Street.
- The cross-platform pedestrian pathway is aligned with the pedestrian pathway which runs diagonally through the GSA Building.
- The entrance to Building A is aligned with the roadway running between the project and the GSA Building.
- An arcade is currently planned to connect the train platform area to the Massachusetts General Hospital area and the West End.
- An interior, shop-lined pedestrian pathway is currently planned to lead toward the Spaulding Rehabilitation Hospital.

Area views and visual corridors would also be strengthened by the project. Public concourse areas of the project are planned to be located to provide new views along Canal Street to the Custom House Tower. Views of the pubic concourse will also be available from this vantage point. The view back toward the project from the Canal Street corridor would center on a grand entrance to the project, with the new Boston Garden visible directly behind. From the mezzanine area of the new Boston Garden, new views of the Inner Harbor and Charlestown would become available.

The project is being designed to reinforce the area's historic and existing patterns of use. By creating a major railroad station, an arena, a hotel, retail and office space, the project re-establishes and renews the area's longstanding uses. Former and existing structures include an earlier train station (Union Station), the Boston Garden Arena, the Madison Hotel, and the Anelex Building (150 Causeway Street). At-grade, the project consists of retail space and facilities providing access to transportation services. Access to such areas will be provided at all times.

3. Quality of Pedestrian Environment

As discussed in Part 2 above, the project has been designed to create attractive pedestrian pathways responding to the various pedestrian desire-lines which radiate from the North Station railhead. The project also enhances access to MBTA facilities by eliminating the need to cross Causeway Street to reach the Green and Orange Lines, thus avoiding vehicular and pedestrian conflicts.

Pedestrian circulation within the public portions of the project will also be greatly improved as compared to existing conditions. The project will create a sense of arrival for those coming by rail or by foot. Rather than the system of disorienting pedestrian ramps which currently serve the Arena, escalators at the heart of the multi-story grand space comprising the public concourse will carry pedestrians to the mezzanine levels. There, views of the city, restaurants, shops and other active uses will animate the environment. Access to the Arena will be provided through the public concourse.

The project team has been meeting with the MBTA, MDC and Central Artery staff to assure that project planning is consistent with agency goals concerning the provision of pedestrian access from Causeway Street to the Charles River Dam.

4. Consistency with Established Guidelines:

In 1985 the City of Boston issued Design Development Guidelines for the proposed new Arena site (Nashua Street Parking Lot, North Station). In June of 1988, the New Boston Garden Corporation received notice of the City's intention to grant tentative designation as the site developer. In January of 1989, such tentative designation was granted and the City and the Proponent signed a Memorandum of Agreement outlining a building program for site (see discussion in Part I, Section B).

The original project concept, as published in the design guidelines, called for a multi-use development with a new or renovated arena. The project goals include reinforcing North Station's role as a major point of access to Downtown Boston and incorporating transportation improvements to benefit the entire City. The design of the project was directed to enhance public accessibility and integrate the North Station area through its architecture and urban design.

The project as currently proposed meets all of these public criteria while maximizing benefits to the City. The mix of activities, including retail, commercial, transportation and public events, will enliven this part of the City while creating an attractive new destination point.

The project's urban design and architectural character will be sympathetic to the adjacent historic Bulfinch Triangle, while its overall scale and massing will establish the project as a major activity center housing important civic functions. The three buildings will range in height from 350 to 400 feet and be set back from Causeway Street. The base element of the project will step down to a pedestrian arcade, setback from the curb.

Pedestrian movements and activities will be emphasized throughout the project, both internally and externally. Major pedestrian connections will be provided on axis with Canal and Friend Streets, with additional connections to the GSA Building and to the north. The multi-story public concourse will be designed as a grand public space with adjacent mezzanines and pedestrian areas which afford views down into the concourse and out onto the city. Convenient access into and throughout the project will be provided for persons with disabilities.

Transportation activities will reinforce North Station as a significant transportation center. The project is designed to enhance and facilitate these activities, many of which involve public works improvements projects. These projects include the Central Artery reconstruction, the MBTA's proposed track extension, platform improvements, a new underground parking garage, and local street improvements. The MBTA's rapid transit Orange and Green Lines will be accessible directly from the project, eliminating the need to cross Causeway Street, while the Green Line itself will pass through two levels of the project's below-grade garage.

Other public benefits include job creation and funding for job training, linkage payments for affordable housing construction and significant tax revenues for the City (see discussion in Part I, Section C). Each of these benefits is consistent with the IPOD Guidelines for the North Station area. Additionally, the project has been designed to meet the planning objectives of the North Station Urban Renewal Plan.

D. Historic Resources Component

1. Impact on objects, structures, buildings, sites or districts of historic, archaeological or cultural distinction:

As discussed in Section C, Parts 1 and 2 above, the project site is adjacent to the historic Bulfinch Triangle District, which is included in the National Register of Historic Places. Although differing in scale, the project design will respect the character and scale of this adjacent area, incorporating compatible architectural elements and detail. High-rise components will be set back from Causeway Street. A pedestal element will rise from two to eight stories along Causeway Street, establishing a relationship to the existing streetscape and historic scale similar to that found in the Bulfinch Triangle.

Pedestrian connections would be strengthened throughout the project area, with major entrances to the project located on axis with the historic street pattern of the Bulfinch Triangle. Visual connections would also be enhanced through the creation of new views to the historic Custom House Tower, the U.S.S. Constitution and the Charlestown Navy Yard.

The New Boston Garden Development poses minimal potential for disturbance of archaeological resources. The Arena and Building A will be constructed on air rights over the planned MBTA underground garage and extended commute rail platforms. Buildings B and C and the project's pedestal element will be constructed primarily within the footprint of the existing Boston Garden. The existing Arena foundation, built in 1928, includes approximately 200 pile caps, each supported by four to twenty 50-foot concrete or wood piles. Construction of the existing Arena foundation is likely to have largely disturbed any archaeological resources within its footprint.

2. Landmark status of property:

The existing Boston Garden/North Station building has not been designated as a Boston Landmark by the Boston Landmarks Commission. The building is not included in the State Register of Historic Places nor in the National Register of Historic Places.

E. Infrastructure Systems Component

1. Anticipated Demand:

Preliminary estimates of the water, electricity, sewage and energy requirements for the proposed project are as follows:

Domestic water water consumption	330	gpm (avg.)
Fire protection	2,000	gpm
Sewage generation	300	gpm (avg.)
Storm water	1.5	cfs
Electricity/power demand:		
- connected load	37,125	KW
- total demand	22,275	KW
Gas	37,600	cfh

2. Impact on the capacity of existing utilities

Water System: The Boston Water and Sewer Commission's (BWSC) facilities in the immediate area include a 16-in diameter low service, 12-in diameter high services, and a 16-in diameter high pressure fire service water main in Causeway Street; a 10-in diameter water main in Nashua Street; and a 10-in diameter high service main (dead end) in Accolon Way. The area is served from an existing 36-in diameter water main of the Southern Low System. The 36-in diameter water main extends in the passage way just east of the Anelex Building (150 Causeway Street). The BWSC Water Distribution System Study, prepared in May, 1988 concluded that the existing systems in the area were adequate to meet present and future demands.

Sewer System: Wastewater from the project site is tributary to the existing 32-in X 60-in West Side Interceptor in Causeway Street. This interceptor discharges to the Ward Street Headworks, and ultimately to the Deer Island Wastewater Treatment Facility. A 72-in X 90-in combined sewer overflow conduit in Nashua Street transports flows to the Charles River Estuary Facility. The BWSC is currently studying the adequacy of the existing sewer system as part of its combined sewer overflow (CSO) study.

Stormwater System: The local sewer is on the combined plan with combined sewer overflows to the 72-in X 90-in CSO in Nashua Street. Existing on-site storm drainage is currently discharged to the 72-in X 90-in CSO. The project will not impact the volume of runoff from the site but may result in redirection of discharge to separate storm drain discharge outlets at local surface waters.

Electric Power: It is anticipated that the New Boston Garden Development energy requirements will be 3.5 to 4.0 megawatts and that the total project requirements will be 20 to 24 megawatts. Based on preliminary meetings with Boston Edison Company, a new 100 to 115 kv station is planned for the area. Local transmission lines are adequate to meet the project needs.

3. Project need for additional systems facilities

Water System: Water service to the site will be provided from the BWSC water distribution system at various locations which have not yet been determined. Separate domestic water service and fire service may have to be provided to each building included in the project. BWSC and Boston Fire Department review will be required.

Sewer and Storm Systems: New separate sanitary sewers and storm drains will be provided for the project. The BWSC has advised that separate storm drainage should be directed to new storm drain discharge outlets. Sanitary sewers will discharge to existing combined sewers in local city streets. It will be necessary to coordinate the project's sewer connections with changes resulting from the MBTA Green Line Modernization and Central Artery projects, the realignment of Nashua Street, and proposed BWSC sewer system separation programs in abutting City streets.

Electric/Power System: A new 100 to 115 kv station is planned for the area to meet power requirements for this and other area projects. The Boston Gas Company and Boston Thermal Energy Corporation are evaluating options for providing heat and power to the project as well as chilled water (BTEC) which may reduce electric power demands.

F. Housing Resources Component

1. Relationship of project to creation of affordable housing

An affordable housing component was originally included as part of the Design Development Guidelines issued by the City of Boston (1985) for the project site. At the present time, the building program and the mix of uses proposed for the site excludes housing as a financially feasible use. Current plans call for the reinforcement of the area as a major railroad and rapid transit center, along with a significant amount of commercial, recreational, and special-event activities which are not considered compatible with on-site residential uses. As described below, the Proponent will further the City's objectives for the creation of affordable housing through the payment of housing linkage fees.

2. Payments to Neighborhood Housing Trust

The Proponent will contribute linkage fees to the Neighborhood Housing Trust pursuant to a Development Impact Project Agreement under Article 26A of the Boston Zoning Code. Such fees will be used to create affordable housing, and they are anticipated to total approximately $15 million based on current formulas.

IV. COORDINATION WITH OTHER GOVERNMENTAL AGENCIES

A. Boston Civic Design Commission Review

The Boston Civic Design Commission (BCDC) has jurisdiction to review Large-Scale Development Projects, Projects of Special Significance, and Civic Projects. Accordingly, the project will be subject to BCDC review, and the Proponent and project team will work with BCDC as necessary to satisfy applicable BCDC requirements.

B. Boston Landmarks Commission Review

The existing Boston Garden/North Station building has not been given Boston Landmarks designation by the Boston Landmarks Commission. The Proponent and project team will work with the Boston Landmarks Commission as necessary to satisfy commission requirements, if applicable.

C. Massachusetts Environmental Policy Act Requirements

The project is subject to environmental impact review under the Massachusetts Environmental Policy Act (MEPA) and will require the preparation of an environmental impact report. The Proponent and the project team will work with the MEPA Unit of the Executive Office of Environmental Affairs to satisfy applicable MEPA review requirements. The Proponent requests that review of the project under Article 31 and MEPA be synchronized to ensure an efficient review process which addresses the concerns of both the BRA and MEPA Unit.

D. Architectural Access Board Requirements

The project will be subject to requirements of by the Architectural Access Board. The Proponent and project team will work with the Board as necessary to satisfy applicable requirements for accessible design.

E. Other Agencies

Project planning and review will be coordinated as necessary with other governmental agencies with jurisdiction over the project or over areas and projects adjacent to the project site, such as the Executive Office of Transportation and Construction, the Massachusetts Department of Public Works, the Massachusetts Bay Transportation Authority, the Metropolitan District Commission, and the Massachusetts Historical Commission. The Proponent and the project team will work with such agencies as necessary to satisfy applicable requirements.

V. PROPONENT'S CERTIFICATION

This form has been circulated to all agencies and persons as required by the Boston Zoning Code, Article 31, Section 31-5(1).

PROPONENT

April 7, 1989

Date

L Moulter

Lawrence C. Moulter
Chairman/President
New Boston Garden Corporation

April 7, 1989

Date

James R. Lowell III

James R. Lowell, III
Vice President, Development
New Boston Garden Corporation

PROPONENT'S REPRESENTATIVE

April 7, 1989

Date

Robert M. Kaye

Robert M. Kaye
Associate
Vanasse Hangen Brustlin, Inc.

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